

AMENDMENTS TO THE CLAIMS:

1-4. (canceled)

5. (currently amended) A method of biosynthetically labeling RNA in a cell of interest, the method comprising:

contacting said cell with a uracil analog having a thiol moiety not normally present in RNA, wherein said cell comprises a phosphoribosyltransferase ~~or nucleoside kinase~~ operably linked to a promoter that can be activated in said cell, and that can specifically incorporate said uracil analog into the corresponding nucleotide, and wherein said uracil analog is incorporated into RNA comprising said thiol moiety, and wherein said uracil analog is not the corresponding uracil-containing nucleoside and said phosphoribosyl transferase is exogenous to said cell;

obtaining RNA comprising said thiol moiety from said cell; and
conjugating a small molecule binding partner to said thiol moiety.

6. (canceled)

7. (previously presented) The method according to Claim 5, wherein said small molecule binding partner is biotin.

8. (Withdrawn) The method according to Claim 5, wherein said tag comprises a detectable label.

9. (Withdrawn) The method according to Claim 8, wherein said detectable label is a fluorochrome, radiolabel, heavy metal label, or enzyme conjugate.

10. (previously presented) The method according to Claim 5, further comprising the step of binding a specific binding partner to said small molecule binding partner.

11. (original) The method according to Claim 10, wherein said specific binding partner is conjugated to an insoluble substrate for affinity chromatography, and wherein said biosynthetically labeled RNA is separated from non-labeled RNA.

12. (withdrawn) The method according to Claim 11, wherein said separated RNA is reverse transcribed.

13. (original) The method according to Claim 11, wherein said separated RNA is amplified.

14. (withdrawn) The method according to any of Claims 11, wherein said separated RNA is labeled with a detectable label.

15. (withdrawn) The method according to Claim 14, wherein said separated RNA is labeled by end-labeling.

16. (withdrawn) The method according to Claim 14, wherein said separated RNA is labeled by reverse transcriptase.

17. (withdrawn) The method according to Claim 14, wherein said separated RNA is labeled during amplification.

18. (original) The method according to Claim 10, wherein said specific binding partner is conjugated to a detectable label.

19. (original) The method according to Claim 18, wherein said detectable label is a fluorochrome, radiolabel, heavy metal label, or enzyme conjugate.

20. (withdrawn) The method according to any one of Claim 9, further comprising the step of hybridizing said RNA or derivative thereof to a nucleic acid containing substrate.

21. (withdrawn) The method according to Claim 20, wherein said nucleic acid substrate is a northern blot, array, tissue section, or cell.

22. (withdrawn) The method according to Claim 11, wherein said RNA is cross-linked to an interacting molecule.

23. (previously presented) The method according to Claim 5, wherein said promoter is constitutively active in said cell of interest.

24. (withdrawn) The method according to Claim 3, wherein promoter is inducible.

25. (withdrawn) The method according to Claim 24, wherein said promoter is induced by the presence of a signaling molecule.

26. (withdrawn) The method according to Claim 24, wherein said promoter is tissue specific.

27. (withdrawn) The method according to Claim 24, wherein said promoter is cell type-specific.

28-32. (canceled)

33. (currently amended) A method of biosynthetically labeling RNA in a cell of interest, the method comprising:

contacting said cell with a uracil analog having a reactive thiol moiety not normally present in RNA, wherein said cell comprises a uracil phosphoribosyltransferase (UPRT) that can convert said uracil analog to the corresponding uridine monophosphate, wherein said uracil analog is not the corresponding uracil-containing nucleoside, and said uracil phosphoribosyltransferase is exogenous to said cell;

wherein said uracil analog is incorporated into RNA synthesized by said cell.

34. (original) The method according to Claim 33, wherein sequences encoding said UPRT are operably linked to a promoter that is active or can be activated in said cell.

35. (canceled)

36. (original) The method according to Claim 33, wherein said uracil analog is 2,4 dithiouracil.

37. (original) The method according to Claim 33, wherein said UPRT is *Toxoplasma gondii* UPRT or a functional derivative thereof.

38-41. (canceled)